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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/618,455	Applicant(s) FOISY ET AL.	
	Examiner Stephen M. Baker	Art Unit 2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 and 53-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18, 20-51, 53-55 and 57-63 is/are rejected.
- 7) ☒ Claim(s) 19 and 56 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. <u>20060519</u> . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20060526</u> . | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-13 and 27-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 14, "the information additive code receivers reconstruct" presumes plural receivers and thus partly contradicts "one or more additive code receivers" in line 6; in line 15, "which information additive code transmitters" presumes plural transmitters and thus partly contradicts "one or more additive code transmitters" in line 2.

In claim 27, lines 11-12, "the information additive code transmitters" presumes plural transmitters and thus partly contradicts "one or more additive code transmitters" in line 4.

In claim 38, line 11, "the information additive code receivers" presumes plural receivers and thus partly contradicts "one or more receivers" in line 2.

In claim 45, line 8, "the information additive code receivers" presumes plural receivers and thus partly contradicts "one or more information additive code receivers" in lines 6-7.

In claim 49, lines 9-10, "the information additive code sources" presumes receptions from plural sources and thus partly contradicts "one or more of a plurality of sources" in lines 3-4.

In claim 57, lines 10-11, "the information additive code receivers" presumes plural receivers and thus partly contradicts "one or more information additive code receivers" in lines 6-7 and 7-8.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 7, 8, 14, 15, 24, 26, 27, 35, 38-42, 45-47, 49, 50 and 53-55 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,425,050 to Schreiber *et al* (hereafter "Schreiber").

Schreiber discloses arrangements for encoding and decoding a television signal for broadcasting to plural receivers using coding techniques of FEC, spectrum-spreading and OFDM . Schreiber thus discloses arrangements for encoding, broadcasting, and decoding an "information additive code." A PN sequence generator for spectrum spreading in Schreiber's system operates such that "the information additive code transmitted ... at any particular time is independent of the information additive code previously received," as the PN sequences are pseudo-random.

Furthermore, each one of Schreiber's codewords is independent of all other ones of Schreiber's codewords, assuming the original data of each codeword is independent, because Schreiber's code is a block code. The PN data for each transmission symbol in Schreiber's system also serves as a "decoding key." Schreiber's encoder and decoder are "multistage," and thus include a "single stage," as shown by Schreiber's Figs. 6 and 7 and Schreiber's Fig. 9.

5. Claims 1-3, 7, 12-14, 16, 24, 27, 38-42, 45-49 and 53-56 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,917,852 to Butterfield *et al* (hereafter "Butterfield").

Butterfield discloses arrangements for encoding and receiving a subscriber signal for wireless transmission using coding techniques of variable FEC, scrambling and direct-sequence spectrum-spreading. Butterfield thus discloses arrangements for encoding, broadcasting and decoding an "information additive code." A scramble pattern generator for spectrum spreading in Butterfield's system operates such that "the information additive code transmitted ... at any particular time is independent of the information additive code previously received," as the scramble patterns are pseudo-random. Furthermore, each one of Butterfield's codewords is independent of all other ones of Butterfield's codewords, assuming the original data of each codeword is independent, because Butterfield's code is a block code. Butterfield's encoder, and presumably the corresponding decoding, are "multistage," and thus include a "single stage." With reference to Butterfield's Fig. 11, a puncture and sync insertion unit (54) serves as a "static key" generator for a "static encoder" (48, 50, 52, 54), and units for

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scrambling and spreading (62, 64, 66, *etc.*) the punctured code serve as a “dynamic key” generator for a “dynamic encoder” (58, 60, 68, 70, 72, 74, 76, 78).

6. Claims 1, 2, 5, 7, 12-14, 16, 24, 27, 38-49 and 53-56 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,677,864 to Khayrallah (hereafter “Khayrallah”).

Khayrallah discloses arrangements for encoding and receiving a subscriber signal for wireless transmission using coding techniques of variable FEC, encryption and direct-sequence spectrum-spreading. Khayrallah thus discloses arrangements for encoding, broadcasting and decoding an “information additive code.” An encryption means or, alternatively, the codeword-parallel transmission arrangement in Khayrallah’s system operates such that “the information additive code transmitted ... at any particular time is independent of the information additive code previously received.” Each one of Khayrallah’s codewords is independent of all other ones of Khayrallah’s codewords, assuming the original data of each codeword is independent, because Khayrallah’s code is a block code. Khayrallah’s encoder, and presumably the corresponding decoding, presumably include a “single stage.” Khayrallah’s system apparently provides each transmission unit with a “static key” to identify which data stream a transmission unit belongs to, and a “dynamic key” to identify which transmission unit belongs to.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 2, 3, 27-29, 35, 37, 49-51 and 57-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Butterfield.

Regarding claims 57-63, Butterfield does not disclose a software implementation of all the logic operations used in encoding and in decoding. Official Notice is given that the advantages of implementing logical operations by means of program instructions were well known at the time the invention was made. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to implement the logical operations of encoding and decoding in Butterfield's system by means of program instructions. Such an implementation would have been obvious because the advantages of implementing logical operations by means of program instructions were well known.

Regarding claims 2, 3, 27-29, 35, 37, 49-51 and 61-63, Butterfield does not show implementations for performing the descrambling and decoding in each receiver. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to implement the logical operations of decoding in Butterfield's system by using descrambler logic followed by depuncturing and convolutional code decoding logic. Such an implementation would have been obvious because it would simply reverse the encoding and scrambling processes in the conventional manner. In such an implementation, the scramble pattern for each transmission symbol would

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serve as a “dynamic key” for a de-scrambler serving as a “dynamic decoder,” and the de-puncturing pattern for each transmission symbol would serve as a “static key” for a depuncturer/convolutional code decoder serving as a “static decoder.”

9. Claims 1, 2, 4-6, 8-10, 12-14, 17, 18, 21, 24, 25, 27, 28, 32, 35, 36, 38-47, 49, 50, 53-55, 57-59, 61 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,012,159 to Fischer *et al* (hereafter “Fischer”).

Regarding claims 1, 6, 8, 14, 27, 38, 41, 42, 45, 49, 57 and 61: Fischer discloses arrangements for encoding $n > k$ coded packets from k file data packets using a host computer program and one-way satellite broadcasting the n encoded packets to plural subscriber computers, wherein each subscriber computer is programmed to reconstruct the original k file data packets using k received coded packets, regardless of which k coded packets are received. The file may be broken into chunks, with each chunk providing k data packets. Fischer’s packet overhead also includes packet sequence numbers. Fischer thus discloses arrangements for encoding, satellite broadcasting, and decoding an “information additive code” (*i.e.* a packet erasure correction code and a other packet overhead data) comprising one or more encoded chunks.

Fischer does not specifically describe the encoding as being such that “the information additive code transmitted ... at any particular time is independent of the information additive code previously received.” Official Notice is given that the advantages of encrypting or scrambling packet data, which modulates the data pseudo-randomly and thus makes data symbols “independent” from each other, were well known at the time the invention was made. Furthermore, each one of Fischer’s

codewords is independent of all other ones of Fischer's codewords, assuming the original data of each codeword is independent, because Fischer's code is a block code. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to enhance Fischer's system by encrypting or scrambling the packet data. Such enhancement would be obvious because the advantages of encrypting or scrambling packet data were already well known.

Regarding claim 2: Fischer's encoder and decoder are not "multi-stage" and thus must be considered "single stage".

Regarding claims 12, 13, 24, 25, 35, 36 and 53: Fischer's transmission and reception via satellite of course requires satellite signal carrier modulation and demodulation.

Regarding claims 39, 46, 54 and 58: Fischer's data file before encoding is of course "source data" that has been "arranged" forming an "ordered sequence".

Regarding claims 4, 21, 32, 43 and 44: although Fischer discloses that the host computer (11) may be extended with a transmission communication device (13) for the transfer of encoded data via cable to a satellite uplink transmitter (14), Fischer does not describe a "protocol converter" for generating the satellite uplink data. Official Notice is given that the utility of converting a computer communication protocol into a satellite broadcast protocol, for the transmission of computer data files by satellite, was widely known at the time the invention was made. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to implement Fischer's connection between the host and the satellite uplink using a protocol conversion

processing. Such an implementation would have been obvious because the utility of converting a computer communication protocol into a satellite broadcast protocol, for the transmission of computer data files by satellite, was already widely known. Such an implementation would presumably involve a complementary conversion from the satellite protocol at the subscriber-side.

Regarding claim 5: although Fischer discloses that the subscriber computer (20) may be a PC, Fischer does not describe a “secondary channel” for the subscriber computers. Official Notice is given that the utility of providing a PC with numerous “channels”, e.g. a dial-up modem, an ethernet card and a wireless networking card, was widely known at the time the invention was made. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Fischer’s subscriber PCs with a secondary channel. Such an implementation would have been obvious because the utility of providing a PC with numerous “channels”, e.g. a dial-up modem, an ethernet card and a wireless networking card, was already widely known.

Regarding claims 9, 10, 17 and 18: Fischer’s encoder is embodied by software on a general-purpose computer, the general-purpose computer presumably have a “cache unit” and a “control unit” coupled to the cache and to a software instruction processing unit, for coordinating the transfer of data between the cache and the software instruction processing unit during encoding, thereby “commanding” the transfer of data to the software instruction processing unit. Furthermore, such cache would inevitably provide “segment buffers” in storing the units of data to be encoded, would

inevitably involve an "upload" unit for loading the data to be encoded into the cache, and would inevitably involve a "command port" to receive the cache control commands.

Fischer doesn't discuss the internal details of the programmed computer, and thus doesn't disclose a controlled cache. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to implement Fischer's encoder with a "cache unit" and a "control unit" functioning as recited in the claims.

Such an implementation would have been obvious because Fischer's encoder is embodied by software on a general-purpose computer, and because a general-purpose computer typically has a controlled cache.

Regarding claims 28, 40, 47, 50, 55, 59 and 62: Fischer's packets include sequence numbers that are isolated (re-generated) for use in decoding, serving as "decoding keys".

10. Claims 1, 2, 4-10, 12-14, 17, 18, 21-28, 32-47, 49, 50, 53-55, 57-59, 61 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,081,907 to Witty *et al* (hereafter "Witty").

Regarding claims 1, 6, 14, 27, 38, 41, 42, 45, 49, 57 and 61: Witty discloses arrangements for encoding $n > k$ coded packets from k file data packets using a host computer program and satellite broadcasting the n encoded packets to plural client computers, wherein each client computer is programmed to reconstruct the original k file data packets using k received coded packets, regardless of which k coded packets are received. The file may be broken into groups, with each group providing k data packets. Witty's packet overhead also includes packet sequence numbers. Witty thus

discloses arrangements for encoding, satellite broadcasting, and decoding an “information additive code” (*i.e.* a packet erasure correction code and other packet overhead) comprising one or more encoded groups.

Witty does not specifically describe the encoding as being such that “the information additive code transmitted ... at any particular time is independent of the information additive code previously received.” Official Notice is given that the advantages of encrypting or scrambling packet data, which modulates the data pseudo-randomly and thus makes data symbols “independent” from each other, were well known at the time the invention was made. Furthermore, each one of Witty’s codewords is independent of all other ones of Witty’s codewords, assuming the original data of each codeword is independent, because Witty’s code is a block code. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to enhance Witty’s system by encrypting or scrambling the packet data. Such enhancement would be obvious because the advantages of encrypting or scrambling packet data were already well known.

Regarding claim 2: Witty’s encoder and decoder are not “multi-stage” and thus must be considered “single stage”.

Regarding claims 4, 21, 32, 43 and 44: Witty discloses that, on the sending side, data received at a bridge-router (32) is converted from the packet format of the network (28) to a format appropriate for the broadcast network (30), thus indicating a “protocol converter” operation by the bridge-router.

Regarding claim 5: Witty discloses a modem (78) providing a “secondary channel” for the client computers.

Regarding claims 7, 8, 26 and 37: Witty discloses that the broadcast network medium can alternatively be radio (terrestrial) or cable (col. 3, lines 33+).

Regarding claims 12, 13, 24, 25, 35, 36 and 53: Witty’s transmission and reception via satellite of course requires satellite signal carrier modulation and demodulation.

Regarding claims 22, 23, 33 and 34: the protocol used by Witty’s network (28) can be IP (col. 3, line 24).

Regarding claims 28, 40, 47, 50, 55, 59 and 62: Witty’s packets include sequence numbers that are isolated (re-generated) for use in decoding, serving as “decoding keys”.

Regarding claims 39, 46, 54 and 58: Witty’s data file before encoding is of course “source data” that has been “arranged” forming an “ordered sequence”.

Regarding claims 9, 10, 17 and 18: Witty’s encoder is embodied by software on a general-purpose computer, the general-purpose computer presumably have a “cache unit” and a “control unit” coupled to the cache and to a software instruction processing unit, for coordinating the transfer of data between the cache and the software instruction processing unit during encoding, thereby “commanding” the transfer of data to the software instruction processing unit. Furthermore, such cache would inevitably provide “segment buffers” in storing the units of data to be encoded, would inevitably involve an “upload” unit for loading the data to be encoded into the cache, and would inevitably

involve a "command port" to receive the cache control commands. Witty doesn't discuss the internal details of the programmed computer, and thus doesn't disclose a controlled cache. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to implement Witty's encoder with a "cache unit" and a "control unit" functioning as recited in the claims. Such an implementation would have been obvious because Witty's encoder is embodied by software on a general-purpose computer, and because a general-purpose computer typically has a controlled cache.

Allowable Subject Matter

11. Claims 19 and 56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 11, 30 and 31 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

13. The indicated allowability of claim 20 is withdrawn in view of the newly discovered reference to Rasmussen *et al.* A rejection based on the newly cited reference follows.

Double Patenting

14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory

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obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Claims 14 and 20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/267,573 to Rasmussen *et al.* Although the conflicting claims are not identical, they are not patentably distinct from each other because applicant is so far unable to clearly point out a distinction between an "information additive code" and any typical FEC code.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

16. Applicant's arguments filed 28 July 2005 have been fully considered but they are not persuasive.

Applicant states that “the information additive codes and input key generation do not require prior knowledge of what has already been received (sic).” Applicant continues, noting “as the encoding and transmission (sic) do not rely on what has been received (sic), generating an encoding transmission (sic) using the input keys and output symbols is independent from the receivers receiving and decoding process (sic).

It's here noted that FEC codewords generated at a link transmitter are generally independent of FEC codewords already received at the link receiver, so applicant is possibly alluding to a process of transmitting each codeword in a single baud, on one or more links, which is not an aspect of the code *per se*, but instead a property of the manner in which the code is transmitted. To the extent that applicant's observations here can be best understood, applicant is apparently combining “encoding and transmission” together in a single argument that posits an “encoding transmission,” and applicant furthermore, in similar manner, describes “receiving and decoding,” as a single process. There is seen no constructive reason to set forth a result of a necessary combination of encoding and transmission as if it is a result of a “code” *per se*.

Independent claim 1 recites that “the information additive code transmitted ... at any particular time is independent of the information additive code previously received.” If “code” is to be construed in a typical manner to refer to each codeword, then it should be clear that the claimed information additive code is no different than any other FEC block code in that successive codewords generated from successive data words are independent, at least to the extent that the successive data words are independent. The claim is not specific regarding how much of a codeword is necessarily transmitted

“at any particular time” or regarding the duration of “a particular time,” and so the “particular time” presumably may be construed as any interval of time sufficient to transmit an entire codeword. Independent claims 14, 27, 38, 45, 49, 57 and 61 are similarly vague. Independent claim 53 recites “the output symbols modulated onto the carrier signal at any particular time are independent of the output symbols previously modulated onto the carrier signal” but is not specific regarding whether a “particular time” should be construed as a particular *interval* of time or a particular *instant* of time.

Independent claim 1 recites that “when an amount of non-redundant information additive code sufficient to reconstruct the source data has been received, the ... receivers reconstruct the source data independent of when ... the information additive code was received.” It is here noted that an “information additive code” must include redundant data in order to be capable of being reconstructed in the event that some of the code is missing. It is further here noted that any erasure correction code will provide error-free data if the event that only the non-redundant part of the code is received, and that decoding an erasure correction code is possible regardless of when segments are received, as long as a threshold amount of the code is correctly received. Independent claims 14, 27, 38, 45, 49, 53, 57 and 61 have similar limitations.

Applicant has implied that the erasure-correcting and error-correcting codes cited in rejection of the claims are not “information additive” as such codes add redundancy, however it is here noted that applicant’s codes are also based on redundancy. The erasure-correcting and error-correcting codes cited in rejection of the claims are “information additive” in the sense that generation of their redundancies involves

addition operations and in the sense that their redundancies provide reconstruction information (*i.e.* they add to the available information) in the event of information loss during transmission.

Applicant has substantially non-constructively attempted to define "information additive codes" by examples, listing "LT codes," "Raptor Codes," and "Chain Reaction Codes" and implying the existence of others. It thereby appears that applicant is defining "information additive codes" only to the extent that "information additive codes" codes must have the unique property of being arbitrarily chosen by applicant.

Applicant has constructively defined "information additive codes" by their erasure-correction/error-correction properties by noting that a receiver "need only receive some threshold amount of the coded data, regardless of what particular segment it contains," which of course is also property of any erasure-correction/error-correction code, and thus also a property of every code cited in rejection of the claims.

Applicant has further attempted to constructively define "information additive codes" by noting that a receiver "need only receive some threshold amount of the coded data, *regardless of ... when it is received*," which appears to be a poorly-worded reference to the fact that the locations of erasures or errors have no impact on decodability of the code. Of course, typical erasure-correction/error-correction codes also have this property.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Baker whose telephone number is (571) 272-3814. The examiner can normally be reached on Monday-Friday (11:00 AM - 7:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Stephen M. Baker
Primary Examiner
Art Unit 2133

smb